

In the Claims:

This listing of claims is provided for reference.

Listing of Claims

1. (Previously Presented) A method of selecting a desirable system from a list of wireless communications systems stored in a mobile station, comprising the steps of:

maintaining, in the mobile station, a system priority data table based on acquisition/registration attempts by the mobile station with wireless communication systems, the system priority data table including a plurality of entries, each entry representing a single system acquisition/registration attempt by the mobile station and including a signal acquisition identifier, a power measurement, a system access identifier, and a system lost identifier;

generating a priority data summary table in the mobile station using priority criteria determined from the system priority data table, the priority data summary table including an acquisition success rate field, a last power measurement field, an access success rate field, and a system lost rate field;

predicting whether a future system acquisition/registration attempt on a selected wireless communications system is likely to be successful based on the priority data summary table;

predicting whether the selected wireless communications system is likely to be useable if the future system acquisition/registration attempt is successful based on the priority data summary table;

selecting, by the mobile station, a group of wireless communications systems from the list of wireless communications systems stored in the mobile station in accordance with a

predetermined system selection procedure, the group of wireless communications systems having a first system acquisition order;

reprioritizing, by the mobile station, the group of wireless communications systems in accordance with the priority data summary table, the reprioritized group of wireless communications systems having a second system acquisition order based upon the likelihood of system acquisition/registration and the likelihood of usability; and

attempting, by the mobile station, to acquire a desirable system based on the reprioritized group of wireless communications systems.

2. (Previously Presented) The method of Claim 1 wherein the list of wireless communications systems is a preferred roaming list including a geographic region identifier,

wherein the step of selecting a group of wireless communications systems comprises the steps of:

determining, by the mobile station, a current geographic region of the mobile station; and

searching, by the mobile station, the preferred roaming list for wireless communications systems having a geographic region identifier that corresponds to the current geographic region of the mobile station, and

wherein the first system acquisition order is dictated by the relative order of the selected wireless communications systems in the preferred roaming list.

3-6. (Canceled)

7. (Previously Presented) The method of Claim 1 wherein the step of maintaining further comprises the steps of:

detecting, by the mobile station, a communications event for a currently selected wireless communications system, the currently selected wireless communications system having a corresponding system identifier; and

updating, by the mobile station, an entry in the system priority data to reflect the occurrence of the detected communications event, the updated entry including the corresponding system identifier.

8. (Canceled)

9. (Original) The method of Claim 7 wherein the corresponding system identifier includes a mode and a frequency.

10. (Previously Presented) The method of Claim 7 wherein the step of updating further comprises calculating, by the mobile station, an occurrence rate of the detected event for the currently selected wireless communications system and storing the calculated occurrence rate.

11. (Original) The method of Claim 10 wherein the detected event is a successful signal acquisition and the calculated occurrence rate is a signal acquisition success rate.

12. (Original) The method of Claim 10 wherein the detected event is a failed system access attempt and the calculated occurrence rate is a system access failure rate.

13. (Previously Presented) The method of Claim 1 wherein the step of reprioritizing comprises sorting, by the mobile station, the group of wireless communications systems in accordance with the priority criteria.

14. (Previously Presented) The method of Claim 1 wherein, if the attempted system acquisition and access fails, the step of attempting is repeated with the next system in the reprioritized group.

15 – 20. (Canceled)

21. (Currently Amended) A mobile station comprising:

a memory, in the mobile station, for storing a preferred roaming list, a system priority data table, and a priority data summary table, the preferred roaming list including a first plurality of system identifiers and corresponding acquisition parameters; and

processing circuitry, in the mobile station, for:

maintaining the system priority data table in response to acquisition/registration attempts by the mobile station with wireless communication systems, the system priority data table including a plurality of entries, each entry representing a single system acquisition/registration attempt by the mobile station and including a signal acquisition identifier, a power measurement, a system access identifier, and a system lost identifier;

generating a priority data summary table in the mobile station using priority criteria determined from the system priority data table, the priority data summary table

including an acquisition success rate field, a last power measurement field, an access success rate field, and a system lost rate field;

predicting whether a future system acquisition/registration attempt on a selected wireless communications system is likely to be successful based on the priority data summary table;

predicting whether the selected wireless communications system is likely to be useable if the future system acquisition/registration attempt is successful based on the priority data summary table;

selecting a group of wireless communications systems from the preferred roaming list in accordance with a predetermined system selection procedure, the group of wireless communications systems having a first system acquisition order; and

reprioritizing the group of wireless communications systems in accordance with the priority data summary table, the reprioritized group of wireless communications systems having a second system acquisition order based upon the likelihood of system acquisition/registration and the likelihood of usability.

22. -23. (Canceled)

24. (Previously Presented) The mobile station of Claim 21, wherein the processing circuitry measures the power of a received signal corresponding to the currently selected wireless communications system and store the measured power in the system priority data.

25. (Previously Presented) The mobile station of Claim 21, wherein the processing circuitry calculates the signal to noise ratio E_c/I_o of a received signal corresponding to the currently selected wireless communications system and store the calculated signal to noise ratio E_c/I_o in the system priority data.

26. (Previously Presented) The method of Claim 1, wherein each wireless communications system stored in the mobile station has associated therewith a desirability level, and wherein reprioritizing comprises sorting the wireless communications systems, at each desirability level, in order of likelihood of acquisition/registration.

27. (Previously Presented) The method of Claim 1, wherein each wireless communications system stored in the mobile station has associated therewith a desirability level, and wherein reprioritizing comprises generating a priority metric incorporating desirability level and the priority criteria defined in the priority data summary table, and sorting the wireless communications systems based on the priority metric.

28. (Previously Presented) The method of Claim 1, wherein each wireless communications system stored in the mobile station has associated therewith a desirability level, and wherein reprioritizing comprises adjusting the desirability level up or down based on the priority criteria defined in the priority data summary table.

29. (Previously Presented) The method of Claim 1, wherein reprioritizing comprises removing wireless communications systems from the group of wireless communications systems

that do not meet a predefined threshold based on one or more of the priority criteria defined in the priority data summary table.

30. (Previously Presented) The mobile station of Claim 21, wherein the preferred roaming list comprises a plurality of wireless communications systems, each wireless communications system having associated therewith a desirability level, and wherein reprioritizing comprises sorting the group of wireless communications systems, at each desirability level, in order of likelihood of acquisition/registration.

31. (Previously Presented) The mobile station of Claim 21, wherein the preferred roaming list comprises a plurality of wireless communications systems, each wireless communications system having associated therewith a desirability level, and wherein reprioritizing comprises generating a priority metric incorporating the desirability level and the priority criteria defined in the priority data summary table, and sorting the group of wireless communications systems based on the priority metric.

32. (Previously Presented) The mobile station of Claim 21, wherein the preferred roaming list comprises a plurality of wireless communications systems, each wireless communications system having associated therewith a desirability level, and wherein reprioritizing comprises adjusting the desirability level up or down based on the priority criteria defined in the priority data summary table.

33. (Previously Presented) The mobile station of Claim 21, wherein reprioritizing comprises removing wireless communications systems from the group of wireless communications systems that do not meet a predefined threshold based on one or more of the priority criteria defined in the priority data summary table.